

# TPUH460

79086-S User Manual

## TEK TPUH460

### HDMI 1.4 Extender with Ethernet & RS-232



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[www.tekvox.com](http://www.tekvox.com)

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### Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully, and save the original box and packing material for possible future shipment
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons
- Do not dismantle the housing or modify the module (electrical shock or burn hazard)
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction
- Refer all servicing to qualified service personnel
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water
- Do not put any heavy items on the product's power cable
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards
- Install the device in a place with sufficient ventilation to avoid damage caused by overheating
- Keep the module away from liquids
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes

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### 1. Product Introduction

The HDMI 1.4 Extender consists of a transmitter and a receiver. It can extend 4K or 1080p video to distance up to 328 feet (100 meters) over a single CAT6a cable. It supports bi-directional RS-232 pass-through control and Ethernet extension. 36V PoC feature allows the transmitter can be powered by the receiver and only one power adapter is needed in system.

### 2. Features

- Supports HDMI 1.4 and the HDMI video resolution up to 4K@60Hz 4:2:0
- Supports HDCP bypass and HDCP 2.2 compliant
- Extends 4K or 1080p video signals to distances up to 328 feet (100 meters) over a single CAT6a cable
- Bi-directional RS-232 pass-through control and Ethernet extension
- Provides up to 30W power for 3rd party device (e.g. HD Camera) on transmitter
- Supports 36V PoC, which allows the transmitter to be powered by the receiver

### 3. Package List

- |                                             |                                      |
|---------------------------------------------|--------------------------------------|
| • 1x Transmitter                            | • 1x Receiver                        |
| • 2x TX Mounting Ears with 2x screws        | • 2x RX Mounting Ears with 2x screws |
| • 4x TX plastic cushions                    | • 4x RX plastic cushions             |
| • 1x RS-232 Cable (3-pin to 8-pin Mini-DIN) | • 1x RS-232 Cable (3-pin to DB-9)    |
| • 2x 3-pin terminal blocks                  | • 1x 2-pin terminal block            |
| • 1x Power Adapter (DC 24V, 2.71A)          | • 1x Power Cord                      |
| • 1x Power Cord (2-pin to 5.5x3.0mm jack)   | • 1x User Manual                     |

**Note:** Please contact your distributor immediately if any damage or defect in the components is found.

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### 4. Panel Description

#### 4.1 Transmitter



1. **HDMI IN:** Connects to HDMI source device
2. **CAM 12V:** Provides 12V, 2.5A power for source device (e.g. camera)
3. **Ethernet:** Used for Ethernet extension together with the Ethernet port of the receiver. If one Ethernet port is connected to a router, the other is able to access the LAN network
4. **RS-232:** Connects to the source device (e.g. camera) to be controlled by a far-end control device, or connects a control device (e.g. PC) control a far-end display device (e.g. projector)
5. **Power LED:** Illuminates green when power is applied
6. **HDBaseT Out:** The RJ45 port is connected to the HDBaseT Input port of the receiver by a CAT6a cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and receiver. The HDCP LED illuminates when the video contains HDCP content, or blinks when the video is transmitted without HDCP content.

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### 4.2 Receiver



1. **HDMI Out:** Connects to HDMI display device (e.g. projector)
2. **Ethernet:** Used for Ethernet extension together with the Ethernet port of the transmitter. If one Ethernet port is connected to a router, the other is able to access the LAN network
3. **RS-232:** Connects the display device (e.g. projector) to be controlled by a far-end control device, or connects a control device (e.g. PC) to control a far-end source device (e.g. camera)
4. **Power LED:** Illuminates green when power is applied
5. **HDBaseT In:** The RJ45 port is connected to the HDBaseT output port of the transmitter by a CAT6a Ethernet cable. The LINK LED illuminates when there is a valid HDBaseT link between the transmitter and receiver. The HDCP LED illuminates when the video contains HDCP content, or blinks when the video is transmitted without HDCP content.
6. **DC 24V:** DC Connector for the power adapter connection

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### 5. Specifications

| Transmitter               |                                                                       |
|---------------------------|-----------------------------------------------------------------------|
| Input                     | HDMI IN (19-pin type-A female HDMI)                                   |
| Output                    | HDBaseT OUT (RJ45)                                                    |
| Control                   | ETHERNET (RJ45),<br>RS-232 (3-pin terminal block)                     |
| Power Output              | CAM 12V (2-pin terminal block)                                        |
| Receiver                  |                                                                       |
| Input                     | HDBaseT IN (RJ45)                                                     |
| Output                    | HDMI OUT (19-pin type-A female HDMI)                                  |
| Control                   | ETHERNET (RJ45)<br>RS-232 (3-pin terminal block)                      |
| General                   |                                                                       |
| Video Resolution          | Up to 4K@60Hz 4:2:0                                                   |
| Transmission Distance     | 4K/1080p ≤ 328 feet (100m)                                            |
| HDMI Version              | 1.4                                                                   |
| HDCP Version              | Up to 2.2, bypass                                                     |
| EDID                      | Bypass                                                                |
| Power Supply              | <b>Input:</b> 100 to 240V AC, 50/60Hz<br><b>Output:</b> DC 24V, 2.71A |
| Maximum Power Consumption | 62W                                                                   |
| Operation Temperature     | 23 ~ 131°F (-5 ~ 55°C)                                                |
| Storage Temperature       | -13 ~ 158°F (-25 ~ 70°C)                                              |
| Relative Humidity         | 10% ~ 90%, Non-condensing                                             |
| Dimensions (W*H*D)        | 3.94" (100mm) x 0.94" (24mm) x 6.29" (160mm)                          |
| Net Weight                | <b>TX:</b> 0.82 lbs. (370g)<br><b>RX:</b> 0.84 lbs. (380g)            |